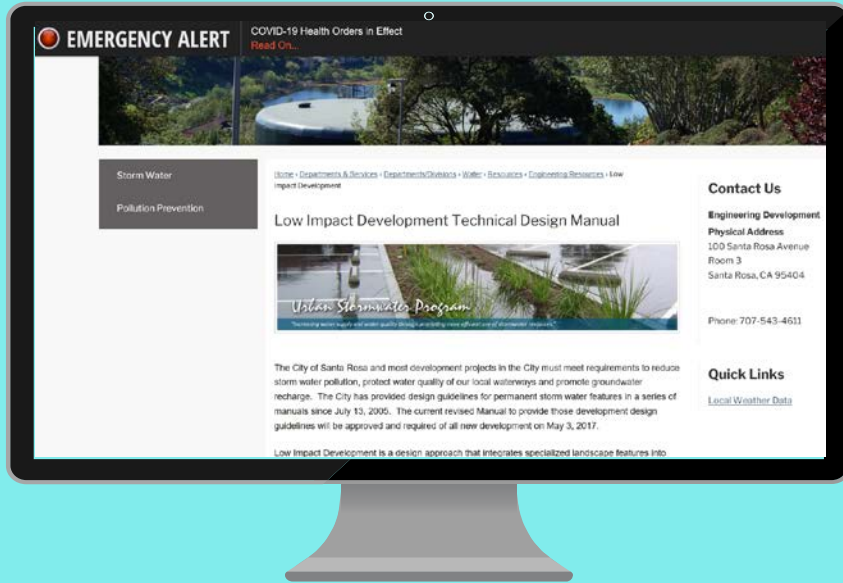


2020 Regional Annual Training

Changes and Clarifications: 2020 Storm Water Low Impact Development Technical Design Manual

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City of Santa Rosa Low Impact Development Technical Design Manual Webpage

The updated manual will be
made available at:
<https://www.srcity.org/1255/Low-Impact-Development>

Acceptance and Approval Dates

The nature of the revisions are clarifications.

The version of Low Impact Development Technical Design Manual (LID Manual) a Project must comply with is based on the California Environmental Quality Act (CEQA) permit approval dates and a Project's specific conditions of approval.

PDF will be added here as a revised document

Manual Related Documents

What did the project receive discretionary approval?

5/3/2017 - Present	7/1/2010 - 5/2/2017	7/13/2005 - 6/30/2010
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LID Manual

- [2017 Storm Water Technical Design Manual-Narrative](#)

Determination Worksheet

- [Worksheet - Storm Water Determination](#)

Storm Water Calculator

- [LID Calculator Ver. 8.11.0](#)

Tools

- [SUSMP Submittal Guide \(PDF\)](#)
- [Plant List](#)

Reference Documents

The Permit

Any reference to the “Permit” in this presentation refers to the California Regional Water Quality Control Board North Coast Region’s *Order No. R1-2015-0030 NPDES No. CA0025054 National Pollutant Discharge Elimination System (NPDES) Permit and Waste Discharge Requirements for Discharges from the Municipal Separate Storm Sewer Systems*

Also commonly referred to as the “MS4 Permit” and “Stormwater Permit”

Changes to the Appendices and Reference Documents

No major substantive changes have been made to the Appendices and References (changes to actual forms, lists, tables, etc.)

What did change:

- “Appendix G: Sample Pervious Concrete Specification” and “Appendix H: Final SUSMP Submittal Guide” have been removed
- “Reference Document G: TR-55 Manual” has been added

The Manual Narrative (Body), Appendices pdf, and Reference Document pdf will be available on the City of Santa Rosa Low Impact Development Technical Design Manual webpage at:
<https://www.srcity.org/1255/Low-Impact-Development>

Changes to the Acronyms, Abbreviations, and Definitions

Full-Depth Reclamation: The Asphalt Recycling and Reclaiming Association defines full-depth reclamation (FDR) as “a reclamation technique in which full flexible pavement section and a predetermined portion of the underlying materials are uniformly crushed, pulverized, or blended, resulting in a stabilized base course.”

A footnote on Page 11 of the LID Manual has been added noting that “FDR maintenance activities are exempt as long as it is not part of a larger development or redevelopment project; does not change pre-project drainage patterns; and does not expand the footprint of the road.

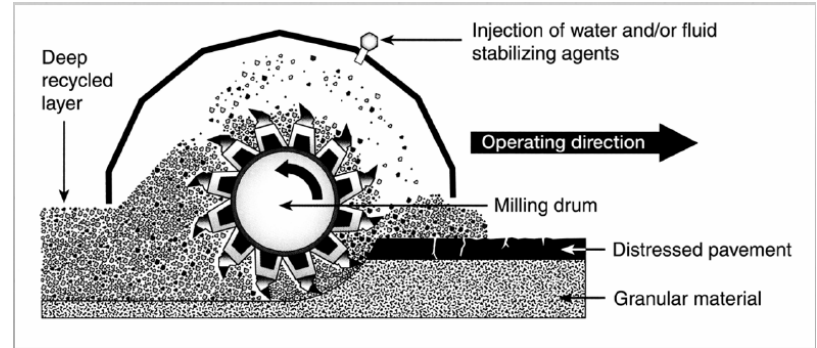


Image Source: https://cdn.ymaws.com/arra.site-ym.com/resource/resmgr/files/ARRA_Full_Depth_Reclamation_.pdf

Changes to the Acronyms, Abbreviations, and Definitions (Cont.)

Pervious Surface: For the purposes of this manual, pervious surfaces are areas that allow for storm water infiltration into the underlying soil as would occur in the undeveloped location in an unaltered condition.

Subgrade: That portion of roadway on which pavement surfacing, aggregate base, subbase or a layer of any other material is placed (also known as the grading plane or the point at which soil would be exposed and/or disturbed).

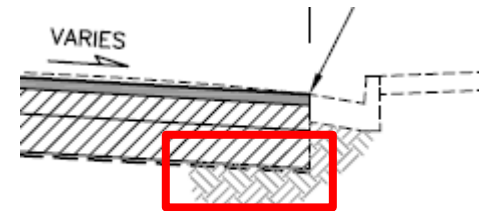
LEGEND



ROADWAY RECONSTRUCTION



EXISTING CONCRETE TO BE
REMOVED AND REPLACED



⁵ Impervious surface replacement, such as the reconstruction of parking lots or excavation to roadway subgrades, is not a routine maintenance activity. Reconstruction is defined as work that replaces surfaces down to the subgrade. Overlays, resurfacing, trenching and patching are defined as maintenance activities. (Permit, p. 26)

Changes to the Acronyms, Abbreviations, and Definitions (Cont.)

Trash Amendment: An amendment to the State Water Resources Control Board's Water Quality Control Plan for Ocean Waters and the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California that establishes a trash discharge prohibition and includes a strategy to provide "full capture" of trash from stormwater through the use of existing and reissued NPDES permit provisions, such as the MS4 permit. The Trash Amendment requires that all debris particles 5 millimeters or greater in size must be trapped to meet the full capture standard.

Changes to the Acronyms, Abbreviations, and Definitions (Cont.)

Modifications have been made to the following definitions:

- Hydromodification
- Hydromodification Control
 - Reconstruction
 - Redevelopment
 - Trash Capture
- 100% Volume Capture

Changes to Chapter 1: Introduction

With regards to vegetated cover, text throughout the manual has been revised to specify the following:

At plant maturity, at least 50% of a BMP must be vegetated for the BMP to be considered a LID BMP per the BMP Selection Table. If 50% vegetated cover will not be established before the completion of construction, the following shall be supplied as part of the project design submittal approval process in order to be considered a LID BMP:

- 1) An erosion control plan for the LID BMPs with sufficient measures to provide soil stabilization and treatment until plant maturity (e.g. ground-up, composted mulch on all bare soils with rock inlet protection); and**
- 2) A planting and irrigation plan for the LID BMPs that shall include, by plant genus species and common name, selected plants, maximum spacing, total number of plants to be installed, and a table with mature plant size (canopy).**

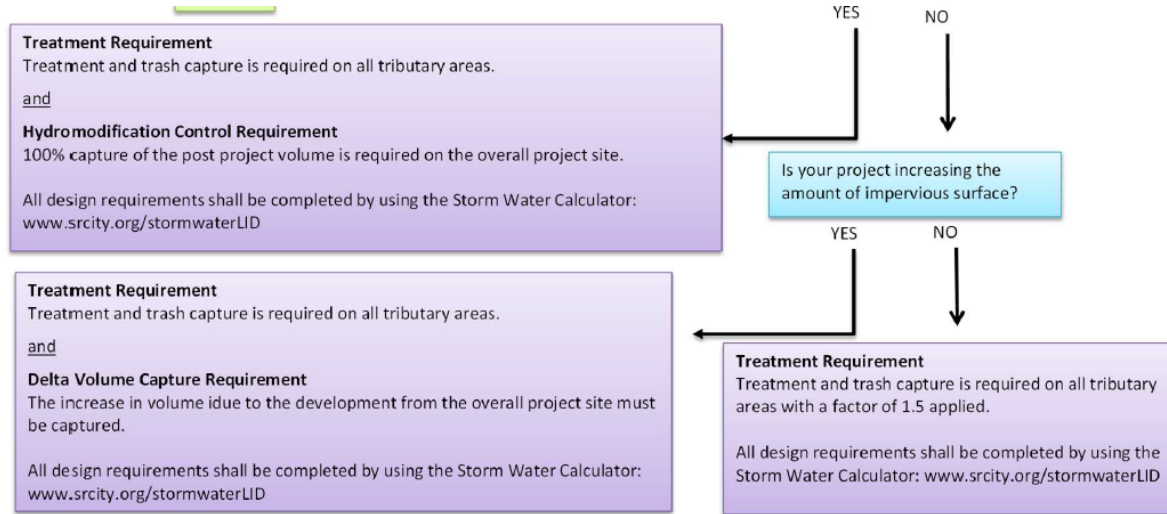
Changes to Chapter 2: Project Triggers

Page Footnote 2 (previously footnote 1) revised to read:

"Routine Maintenance Activity" This exemption includes activities such as overlays, resurfacing, and/or road pavement structural section rehabilitation (e.g. FDR) of existing roads or parking lots as well as trenching and patching activities and reroofing activities. For activity to be routine maintenance it must not change existing lines and grades or hydraulic capacity. Minor changes to line or grade of 0.20 feet or less shall be considered as maintaining original line and grade. Replacement of existing pedestrian ramps to maintain compliance with current Americans with Disabilities Act Requirements shall be regarded as routine maintenance.

Changes to Chapter 2: Project Triggers (Cont.)

Trash requirements were further highlighted as seen below in “Figure 1. Project Triggers and Exemptions Flow Chart” as well as in Tables 1 and 2.



Changes to Chapter 2: Project Triggers (Cont.)

Table 1: Design Requirements for Project Sites Under 1.0 Acre of New and/or Replaced Impervious Surface

	Description of Tributary Area	Design Requirements:	Notes
		All BMPs must meet the design criteria of a LID BMP as defined by this manual.	
1	Tributary area consists of <u>both existing and new and/or replaced</u> impervious area.	Existing impervious area: Treatment required. New and/or replaced impervious area: 100% Volume Capture or both Delta Volume Capture and Treatment required.	Order R1-2015-0030 trash capture requirements must be <u>met in all tributary areas².</u>

² The trash capture requirements include compliance with the State Water Board's Amendment to the *Water Quality Control Plan for the Ocean Waters* and Part 1 Trash Provision of the *Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (Trash Amendment). LID BMPs must capture trash 100 microns in diameter and larger.

Changes to Chapter 4: Site Assessment

Trash Capture Clarifications:

If the selected LID BMP does not adequately intercept trash as small as 100 microns by virtue of its design (such as bioretention with curb openings) then an additional treatment BMP, such as capture inserts, baskets, or separators, may need to be used. All trash capture BMPs must be accessible and maintainable to ensure proper operation. The 100 microns requirement set forth by NPDES MS4 Permit Order No. R1-2015-0030, is stricter than the State Water Resource Control Board trash intercept requirement of 5 millimeters and therefore meets the State Water Resource Control Board requirement of 5 millimeters.

Plant Survival Warranty Requirements Section Removed

On-site Offset Section Added

Changes to Chapter 5: BMP Selection

SUMMARY OF BMP PRIORITY GROUPS

All projects should consider the use of the “Universal LID Features.” If those features are unable to be used, then “Priority 1” should be considered. If those BMPs are inappropriate or infeasible, then “Priority 2” should be considered, and so on. Any time a lower priority BMP is selected, justifications shall be provided for reasons why higher-level priority BMPs are deemed inappropriate.

Changes to Chapter 6: Submittal

Clauses have been added regarding:

- **Justification of lower priority BMPs selected**
- **Required to supply maintenance and funding sources**
- **Required plantings, erosion control, irrigation, and inlet protection if needed (plant establishment requirements)**